schedule

Remaining tasks by group

Experimental installation & safety:

-ODH sensors are in place, platform floor has been made leak tight to act as containment bath.
-new gas distribution point is almost finished.
-Grounding: see dedicated slide

Detector and tank instrumentation

-level meters: calibrated and installed in detector (see Cosimo)
-GN2 gas flow in tank+top-cap isolation space: all sensors installed and monitored. Insulation space purging installed (but not yet connected to gas supply).
-high voltage: HVFT tested (see Laura, Franco)
-CRP suspension: movement tested
-purity monitor: ready needs one final descent in cryostat for optical FT (very fragile last thing to be installed)
-FE pulser system: in production (see Cosimo)

Slow control PVSS, racks

Cabling almost finished. Few details like 220V power plugs need fixing.
All SC sensors are now operational and online.
Priority now on proper display of those parameters
-online for all collaboration via DB (see Yuiry)
-locally via PVSS in control room (see Yann)

Remaining tasks by group

Front Ends (analog and digital)

- remaining 15 AFEs have been inserted in their respective signal feedthrough (see Dario).
- uTCA crates tested (See Thierry, Jacques).
- digital cards under test at Lyon (see Dario)

DAQ, triggering and monitoring software

- air conditioning for the farm operating
- Farm essentially ready.
- Software installed on the Farm (Elisabetta)
- Data base display in progress (see Yuriy)
- Cosmic counters installed (see David/Igor)
- PMT acquisition setup (see Thorsten, Federico)
- ->need to discuss details about synchronising light and charge
- Goal of DAQ running by October 15th. Need to define exact dates for installation and final noise testing, in principle week of October 10th.

Cryogenic installation

- LN2 tank installed
- Cold: Demaco arrived on Tuesday and installing. Start with valve boxes, then piping to top-cap and piping to main supplies.
- warm: CERN contractor on site since one week. Started assembly of warm panel (i.e the panel with getter, warm pump etc..) and started discussion on Gas supply for our chimney (SGFT and HVFT GN2 supply)
- Racks installed

September

Week Numbers

Sep 2016 (Paris)

Mon	Tue	Wed	Thu	Fri	Sat	Sun
29 Week 35 of 2016	30	31	1	2	3	4
5 Week 36 of 2016	6	7	8	9	10	11
12	13	14	15	16	17	18
19 Week 38 of 2016	20	21	22	23	24	25
26 Week 39 of 2016	27	28	29	30	1	2

Installation of the warm panel and warm piping

Demaco delivery of valve box +piping at 182

insertion HVFT & place level meters

IPNL at CERN installation and test of AFE readout in final configuration

cabling finished- all sensors active to DB

installation of PVB (purification valve box) starts

SCFT closed

-deadline activated copper filter ready for installation in b. 182

Installation of the warm panel and warm piping

DEMACO CRYOGENIC INSTALLATION -

Installation of the warm panel and warm piping

DEMACO CRYOGENIC INSTALLATION

October

Week Numbers

Oct 2016 (Paris)

Mon	Tue	Wed	Thu	Fri	Sat	Sun
26 Week 39 of 2016	27	28	29	30	1	2
3 Week 40 of 2016	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

cut of LAr supply in all the lab

DEMACO CRYOGENIC INSTALLATION. NO ACCES INSIDE DETECTOR OR ON TOP CAP

installation of purity monitor optical fibre and outside electronics

warm acceptance test of cold and warm piping at 14 bar (pressure test of installed piping) supervised by CERN safety with one Demaco person

Heinzinger in position. Connect HVFT cable

installation of DC cards and commissioning of DAQ

FINAL INSPECTION before closing

deadline seal manhole

IPNL DAQ Ready

cryogenic sensor functional tests , validate P&ID check GTA test debugging test of GTA and gas purge

connect last purges screw last flanges. DETECTOR NOW GAS TIGHT

seal evacuate and purge SGFTs

ALL SOFTWARE READY FOR DATA TAKING

GAr piston purge

start GAr purge → 3x1x1 operation mode

LAr filling and cold acceptance

start recirculation process

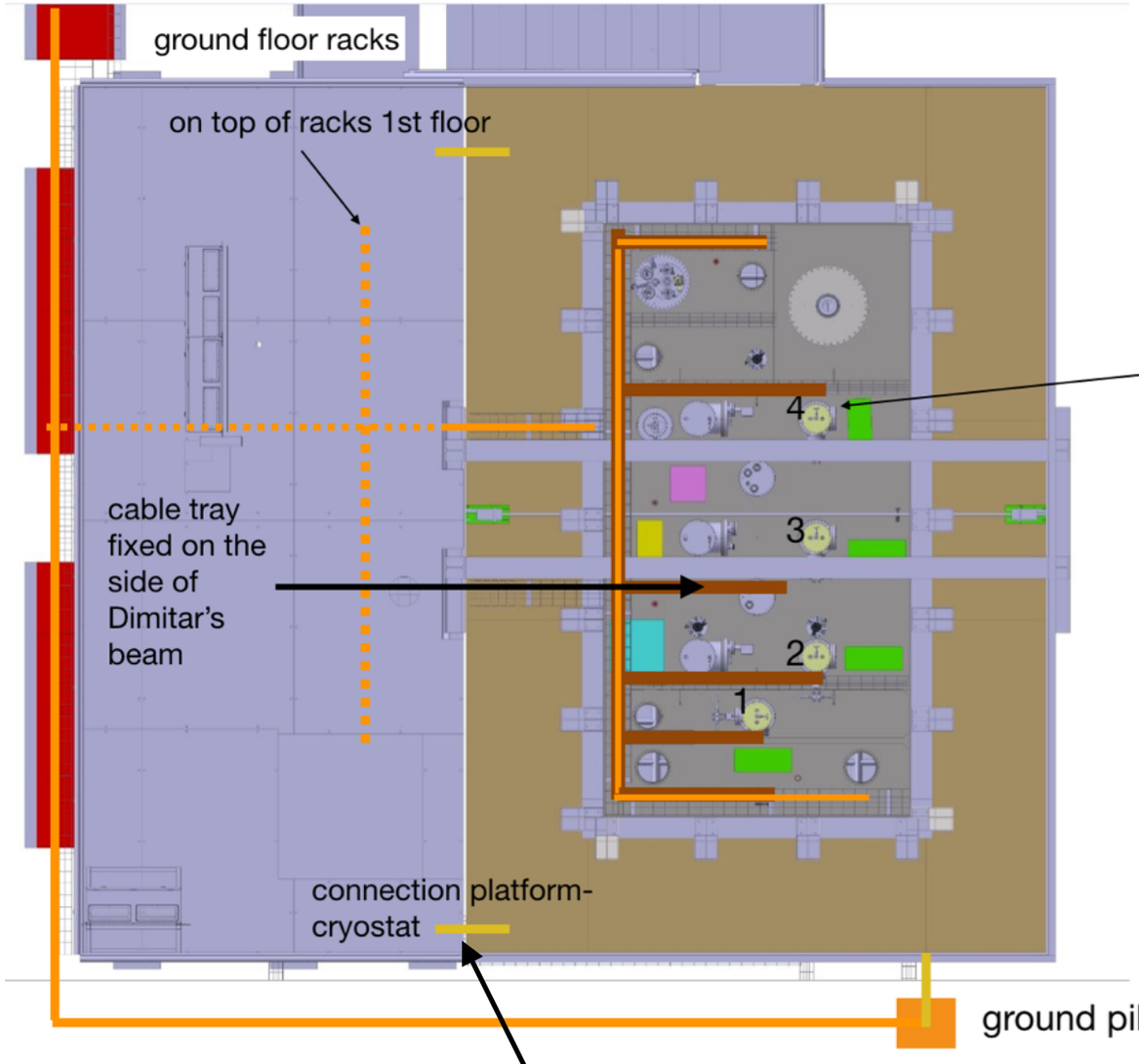
Cabling

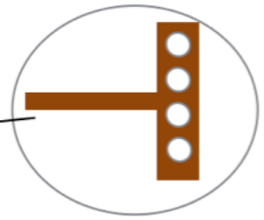
All sensors are operational and recording.
Few items missing:
-connect the HV cables to CAEN
-divider board for HV-LEM
->See Yann

problem at the moment access is difficult because of Demaco. We should make sure not to interfere. Easier access after ~18:00 when they stop.

Top cap grounding

All in place apart from few details (see next slide)





termination near SGFT: a clip with about 4 holes that will be screwed on the flange.

copper cable 95 mm2

copper cable smaller section

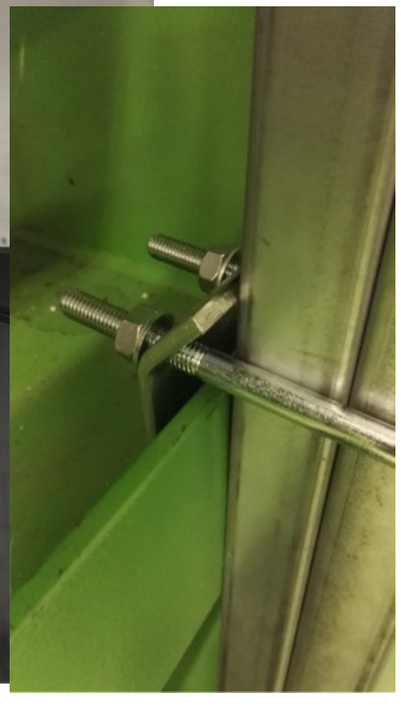
copper foil

Top cap grounding

in general: any metallic structure in contact with the cryostat (which is the main ground) should be well connected to it.

Currently missing grounding:

need to screw a copper connection for CRT-cryostat (here only fixed on the paint of the Steel)

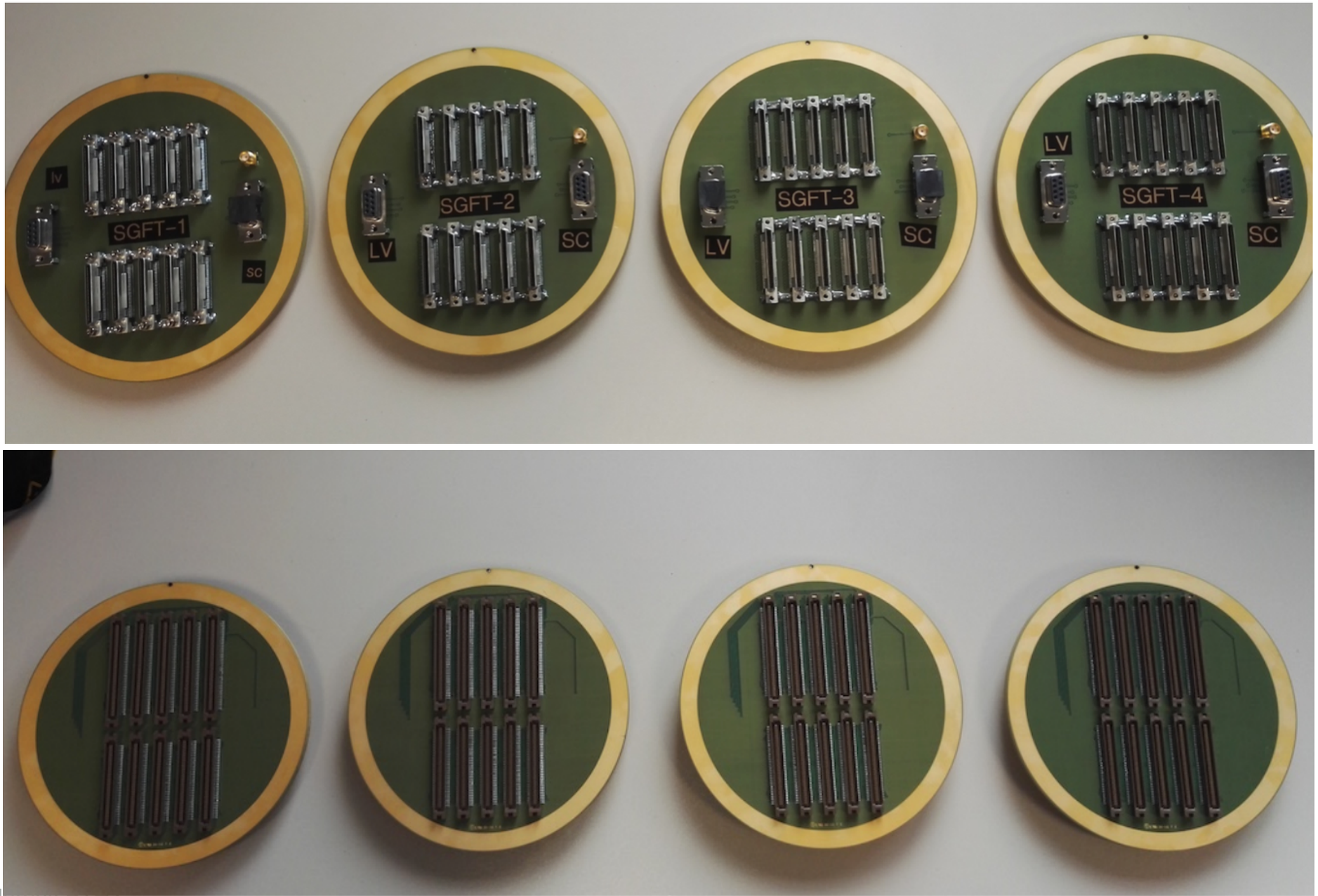


IS gas distribution system

proximity DAQ rack

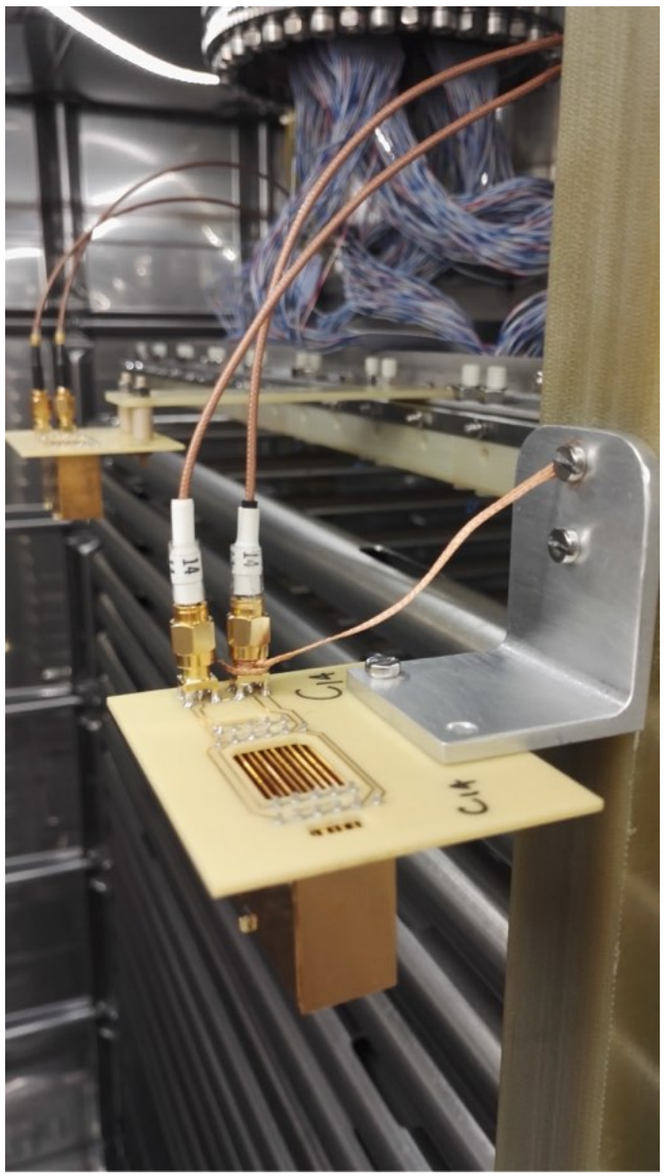
4 warm flanges ready

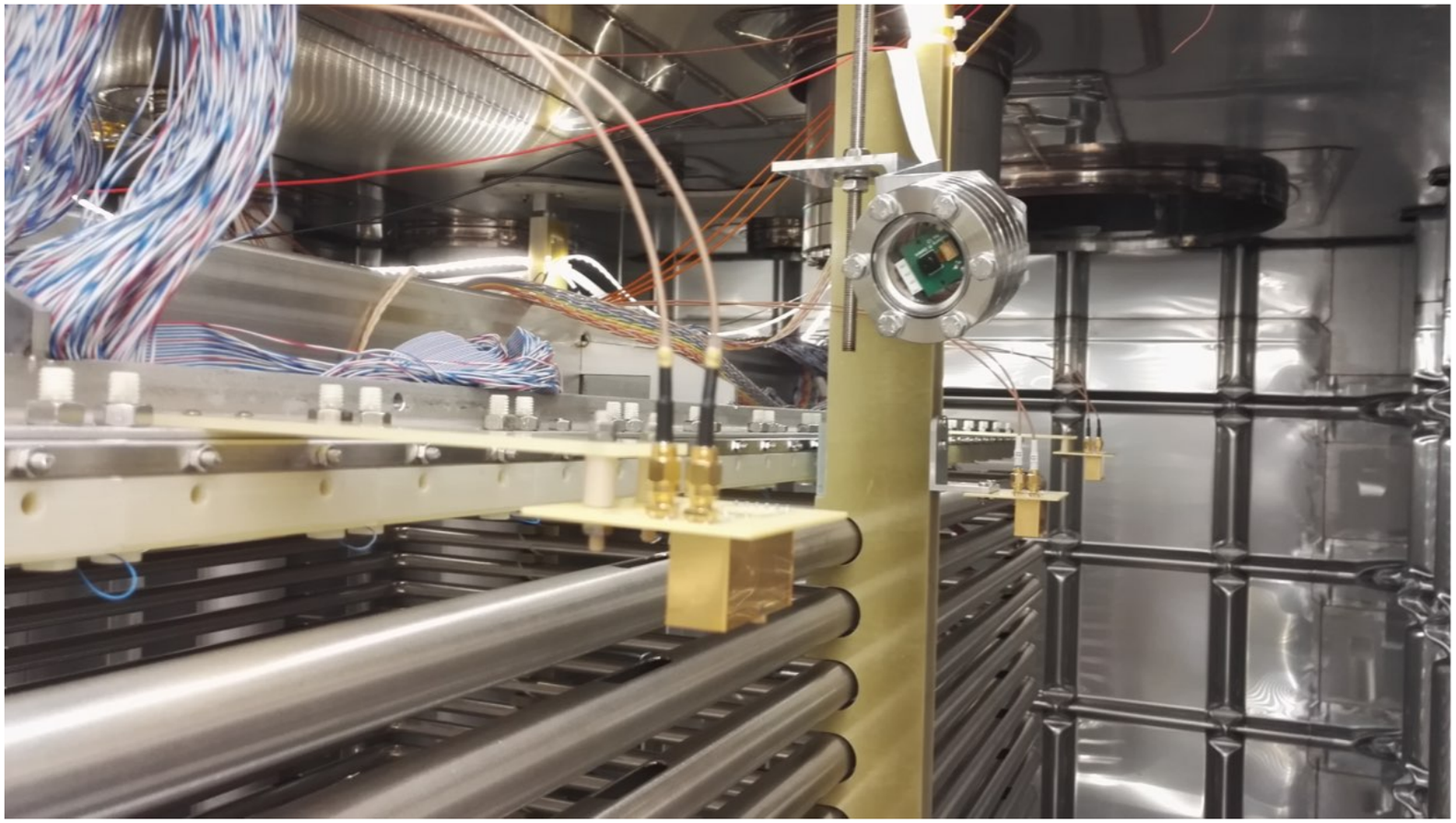
SGFT 1 has already been installed and tested on cryostat last week (see Dario).
All are now installed (Franco) and need to be tested.



level meters installed

all level meters (6 plate on the DC + 7 plate on the CRP + coax) were calibrated and installed Friday and Monday. 2 visits Cosimo and myself.
See slides from Cosimo.
Also took and wrote down precise measurements of the DC and level meters position respective positions. (will circulate the measurements soon)





Cryogenics

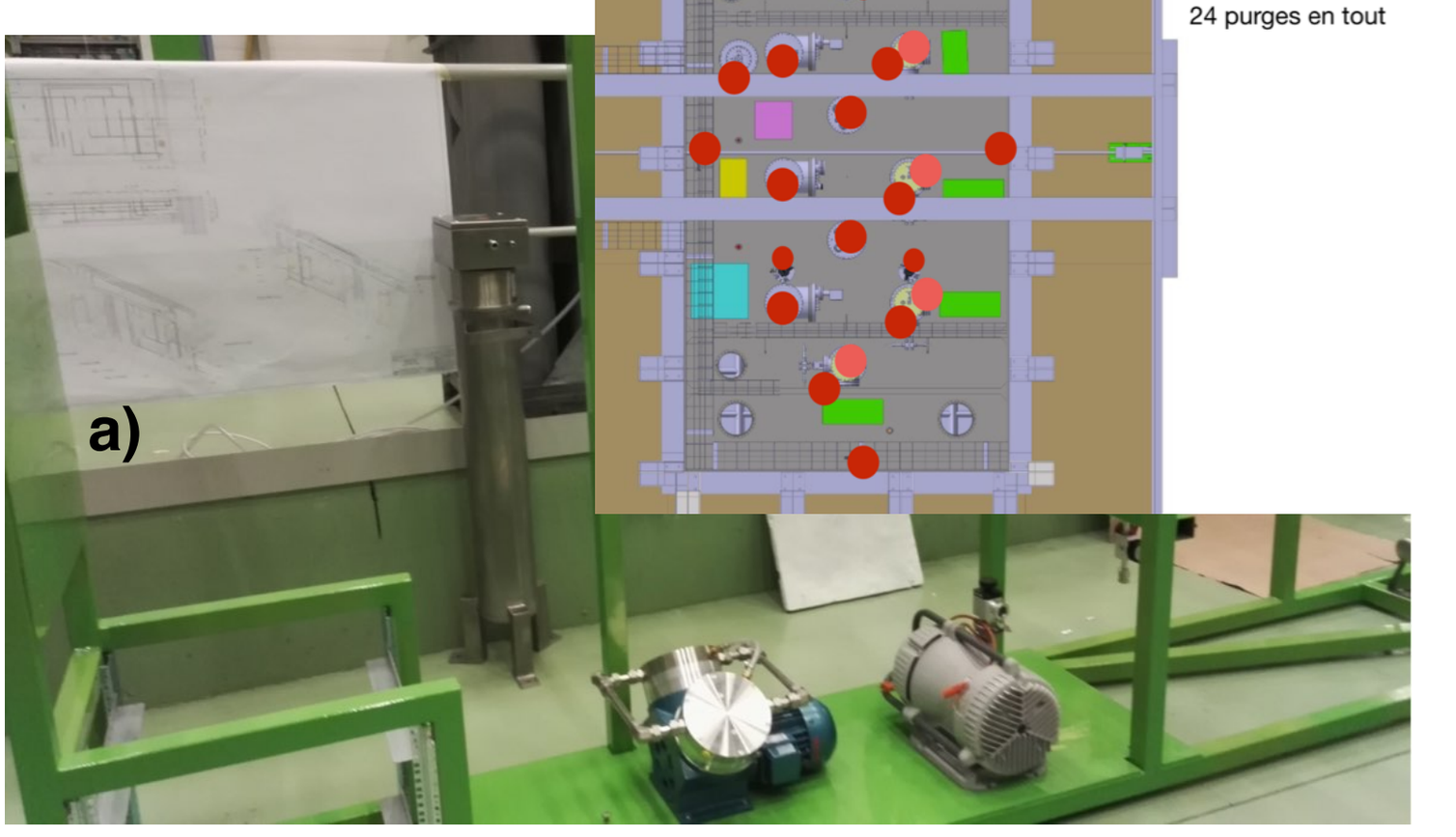
So Demaco arrived on Tuesday…

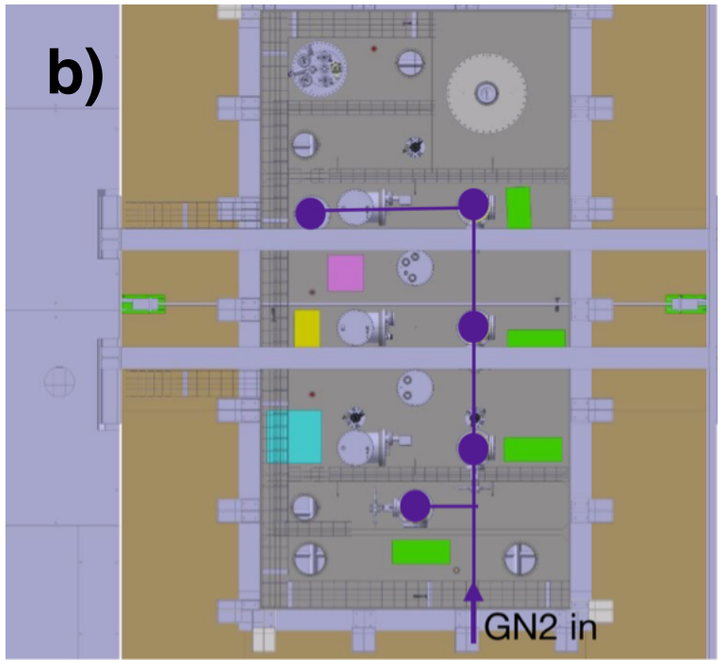
Cryogenics

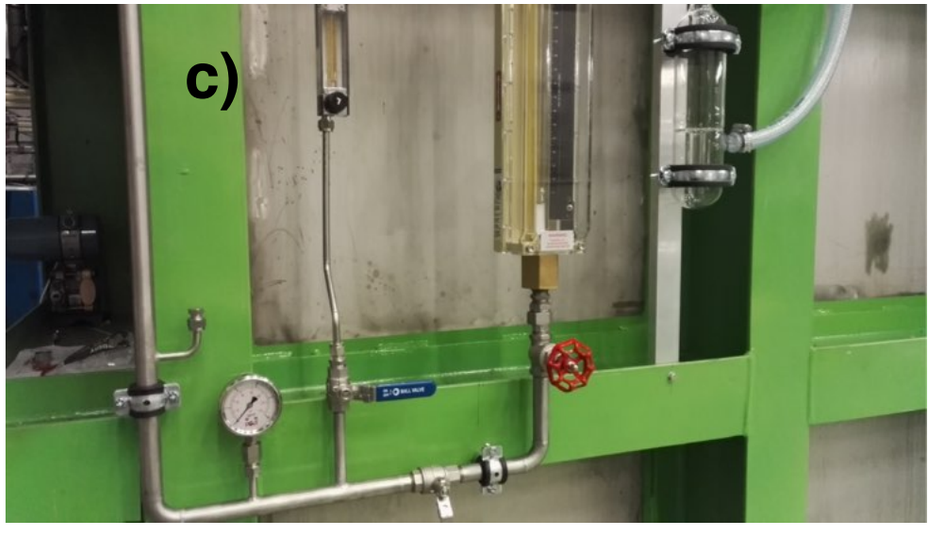
and a picture from yesterday

Warm piping

includes:
a) the piston purge and gas recirculation (in progress, payed by CERN)
b) distribution of the gas N2 to the required chimneys (4 x SGFT + 1x HVFT). not included in the P&ID with CERN->same company will do it as extra.
c)gas N2 distribution of the cryostat insulation space. (done)
d) redoing our gas distribution point outside (almost done)







Slowly migrating to operations

According to schedule from October 24th we should be in operation mode.
All installation should be more or less complete. Laura M and Laura M.B will be responsible for operation.
Tentative date: first meeting on Thursday 20th

for L&L: assume we start on October 24th. Need to:

- make a detailed list of what data we want to take and when.
- maintain close contact with cryogenics to organise piston + filling procedure.
- define test and ramping up order of components (PMTs then LEMs etc..)
- need to all agree on what needs to be done to give the go-ahead for filling (no turning back after). E.g make sure we flush for long enough to remove all water traces from LEMs, etc..
- organise WA105 manpower to come on-site for help in calibrating and testing
- get and compile the operation manuals from different people.
- organise shifts and presence of experts on site.
- Alarms with cryogenics. What happens during holidays?
- keep constant contact with HSE.
- …

Good luck!!